

INFORMATION PAPER (updated January 2003)

SUBJECT: Defense Medical Surveillance System (DMSS) and the Army Medical Surveillance Activity

1. Background: Medical surveillance is defined as the routine and systematic collection, analysis, interpretation, and reporting of population-based data for the purposes of detecting, characterizing, and countering threats to the health, fitness, and well being of populations. In military settings, medical surveillance is required to develop and maintain healthy, fit, and operationally effective forces and to ensure their “total protection” during training and operational missions.

2. AMSA: The Army Medical Surveillance Activity (AMSA) was established in 1994 as part of the Directorate of Epidemiology and Disease Surveillance, U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM). The AMSA staff includes information systems specialists, database managers, programmers, analysts, statisticians, epidemiologists, preventive medicine physicians, and public health officers from each of the three Services. In March 1997, the Assistant Secretary of Defense for Health Affairs (ASD-HA) directed that the Army establish and operate a Defense Medical Surveillance System (DMSS) by transitioning the current capability of the Army Medical Surveillance System (AMSS). AMSA coordinated the development of and now operates the DMSS.

3. DMSS: The Defense Medical Surveillance System (DMSS) is the corporate executive information system for medical surveillance decision support in the EI/DS business area of the Military Health System (MHS). The DMSS receives and integrates standardized data from multiple individual Service and DoD sources worldwide (figure 1). The “engine” of the DMSS is a continuously growing relational database of up-to-date and historical data related to medical events (e.g., hospitalizations, outpatient visits, reportable diseases, HIV results, health risk appraisals, immunizations, deaths), personal characteristics (e.g., rank, military occupation, demographic factors), and military experiences (e.g., deployments, assignments) of all Army, Navy, Air Force, and Marine servicemembers over their entire military careers. There are currently more than 300 million rows of data regarding more than 7.5 million servicemembers in the on-line DMSS database.

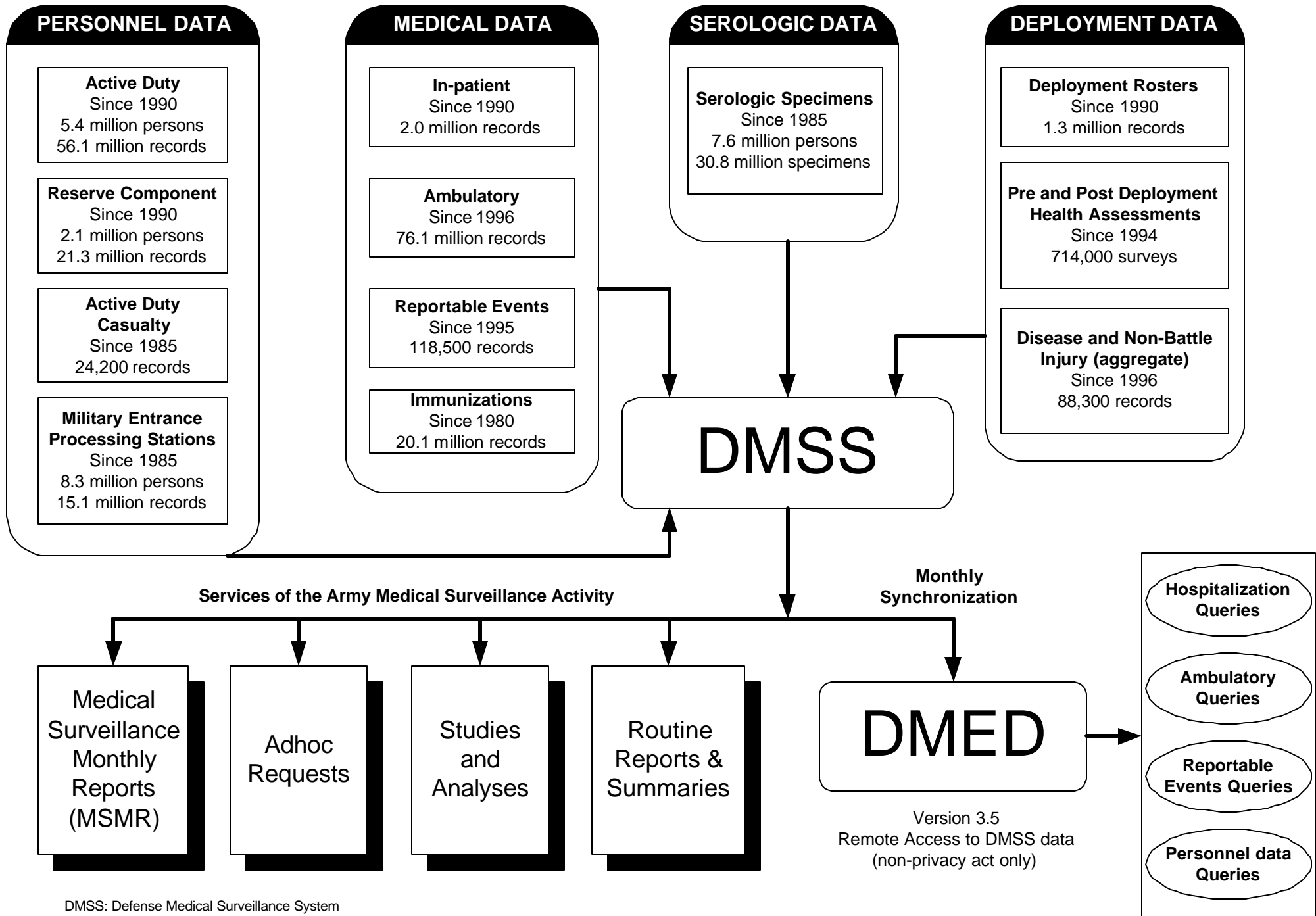
4. DMED: The Defense Medical Epidemiology Database (DMED) application provides authorized users worldwide (through the Internet) with real-time access to user-definable queries of a subset of data (non-privacy) contained within the DMSS. The DMED application (version 3.5) can be downloaded from AMSA’s home page (<http://amsa.army.mil>).

5. Reports: The AMSA/DMSS produces data summaries, epidemiologic analyses, and special reports for policy makers, medical planners, health care practitioners, and researchers worldwide. The Medical Surveillance Monthly Report (MSMR) is the principal vehicle of AMSA/DMSS for the routine dissemination of medical surveillance information of broad interest. The MSMR publishes summaries of notifiable diseases, trends of special surveillance interest (e.g., deployment-related morbidity), and field reports of outbreaks and isolated cases with special public health or military operational significance. Current and previous issues of the MSMR are accessible from AMSA’s home page (<http://amsa.army.mil>).

6. Serum Repository: AMSA and the DMSS provides the sole link between medical surveillance data (e.g., personnel, military experience, medical outcomes) and specimens in the DoD Serum Repository. The DoD Serum Repository, the largest of its kind in the world, contains more than 30 million frozen archived serum specimens from members of all the military services.

7. Contact Information: Further information regarding the availability, use or interpretation of data contained in DMSS and DMED or access to specimens in the DoD Serum Repository may be directed to the staff at the AMSA (202) 782-0471 (DSN: 662). POC: LTC(P) Mark Rubertone, MC, USA, Chief, Army Medical Surveillance Activity, US Army Center for Health Promotion and Preventive Medicine, (202) 782-0471 (DSN: 662), e-mail: “mark.rubertone@amedd.army.mil”.

Figure 1. DMSS Structure and Functional Relationships



DMSS: Defense Medical Surveillance System
DMED: Defense Medical Epidemiology Database